REPORT OF THE SECRETARY OF STATE
ON THE EXAMINATION AND EVALUATION OF AN
DIRECT RECORDING ELECTRONIC VOTE TALLYING SYSTEM

In March 2001 Diebold, Inc. of Canton, Ohio (formerly Global Elections Systems of McKinney, TX) requested the review and examination of a direct recording electronic system under RCW 29.33.041 and 29.33.300. The hardware and software for this system are marketed under the name AccuVote AVTS-R6 DRE Touchscreen. The Hardware components include: Smart Card Reader and Burner, optional ten-key pad and headphones (used in the disability accessible mode), and the AccuVote AVTS-R6 electronic voting device (firmware 4.0.11). The Software that provides the administrative functions of the system is defined in the GEMS module (version 1.17.17).

The AccuVote AVTS-R6 is a poll-site based, direct recording electronic (DRE) voting device with a touch screen interface which interprets touch in specified locations to interact with the voter. An optional ten-key interface allows independent voting for those with sight limitations when used in conjunction with audio playback and headphones.   A PCMCIA card is used to transfer the election-specific database including ballot styles to the DRE device from the GEMS module, as well as transfer the cumulative results from the DRE back to GEMS.

The GEMS software is menu driven and allows the user to describe all aspects of an election. In preparation for ballot counting, the user enters (or downloads from a compatible voter registration system) office descriptions, positions, precinct combinations, ballot types, and any statistical information such as registered voter totals. The GEMS software is also used to produce and download the election definition including the precinct specific programming for the entire county onto the PCMCIA card.   The AccuVote AVTS-R6 can be then be initialized as an 'early voting' system with access to all the precincts and ballot styles for an election when any programmed PCMCIA card is installed. Alternatively, the AccuVote AVTS-R6 can be initialized for a specific polling place with a specified subset of precincts and ballot styles at the time the PCMCIA card is installed.

A Smart Card is used to "issue" a specific ballot style to a voter. Once an election worker has programmed a ballot style identifier onto the card, using the smart card burner, a voter may vote by inserting the card into the reader attached to the AVTS-R6.   The insertion of the card activates the corresponding ballot definition. After "casting" the ballot, the card is disabled and must be re-programmed before it can be used again. The individual voter's choices are recorded on redundant memory components as well as on the PCMCIA card. They are stored in a random order so that the choices can not be traced back to a specific voter.   At the end of election day, the cumulative results from the device can be uploaded to the GEMS software which cumulates the results from all the polling places and reports those totals.   The upload can be performed remotely using a modem and phone attached to the unit or the PCMCIA card can

be removed from the unit and uploaded using a direct serial cable connection and PCMCIA reader.

An electronic vote tallying system must meet the following requirements (as set forth in RCW 29.34.090) in order to be approved for use in Washington State:

1. It must correctly count votes marked on the ballot for any office or ballot proposition;

2. It must recognize and not count overvoted ballots;

3. It must accumulate a count of a specific number of ballots tallied for a precinct;

4. It must accommodate the rotation of candidates' names;

5. It must automatically produce precinct totals in either printed, marked, or punched forms; and

6. It must add precinct totals and produce a cumulative total.

On April 8, 2002 a public hearing was held to demonstrate the AccuVote AVTS-R6 DRE Touchscreen System. Representing the Office of the Secretary of State was Paul Miller, Registration and Systems Manager. The meeting was also attended by The Honorable Evelyn Arnold, Chelan County Auditor, staff members of the Chelan county Auditor's Office, and a representative from Diebold. The vendor made a presentation of the system and a test election was conducted using ballots prepared by the Office of the Secretary of State cast by observers. The vendor answered questions from the Secretary of State staff and the public.   A field test was performed in conjunction with the April 23rd Special Election in Chelan County.

Following the field test a second public hearing was held on August 9, 2002 at the office of the Secretary of State to further demonstrate the Accuvote Voting System. Representing the Office of the Secretary of State was Dean Logan, Director of Elections, and other members of the Secretary of State staff. The meeting was also attended by the Mason County Auditor and Director of Elections, the Island County Auditor, staff from the Thurston County Auditor's office, representatives from Diebold, and members of the media. The vendor made a presentation of the Accuvote election system and a test election was conducted using a group of defined votes prepared at the direction of the Office of the Secretary of State and other ballots prepared by the observers. The vendor answered questions from Secretary of State Staff and others present.

A third public hearing was held to demonstrate the audio voting interface of the Accuvote Voting System at the Office of the Secretary of State on August 23, 2002. Representing the Office of the Secretary of State was Paul Miller, Registration and Systems Manager and Patrick McDonald, Assistant Secretary of State. The vendor made a presentation of the Accuvote election system audio voting features and a test election was conducted using a group of defined votes cast by the observers using the audio voting interface.

FINDINGS OF THE SECRETARY OF STATE

Upon review of the staff evaluation of the Global Elections Management System (GEMS, NASED N0306011717) using the AccuVote AVTS-R6 DRE Touchscreen device (NASED N010702-4011), the presentation by the vendor, the evaluation of the system conducted by the Wyle laboratories in 2001 and the results of the tests performed on this system, the Secretary of State finds that the system satisfies the requirements of RCW 29.33.300 when used in the manner described below.

The user county will not use the system's provisional voting features and will continue to provide a paper ballot to voters in situations that call for a Special Ballot. Special ballots are part of a 'fail-safe' process that allows an individual to cast a ballot in situations where poll-workers are unable to determine the individual's eligibility. The ballot is only counted after election staff is able to determine that the individual is in fact eligible to vote on the ballot contests. The Accuvote provides a feature of convenience that allows the ballot to be cast on the Accuvote and optionally included in the election results after review by election staff. The test and materials review could not establish that the feature functions in a manner consistent with RCW and state practice for special ballots.

SPECIAL IN-PERSON ABSENTEE VOTING PROCEDURE:

The design of the Accuvote, and the requirements of Washington State law, necessitate the use of the following procedures on the part of the user county to use the Accuvote as an 'in-person absentee voting' system. 'In-person absentee voting' refers to voters who cast a ballot on the Accuvote prior to the election date. Conceptually this is the same as a voter picking up and casting an absentee paper ballot at the county elections office prior to an election.

The procedures are:

The system may be used as an 'in-person absentee voting' system if the security safeguards applied to the Accuvote are consistent with those used to protect returned absentee ballots. Access to the smart card burner and Accuvote must be controlled. The device must remain in plain view of the office at all times during working hours and under lock and seal after business hours. The Accuvote voter must sign the same oath an as absentee voter and the user county must maintain a log of all 'in-person absentee' voters with the voters' signatures. The poll books used at the polling places on election day must be marked with an indicator note that warns the pollworker not to issue a regular ballot to a voter who has voted as an in-person absentee voter. The note should remind the pollworker that a special ballot may be issued. It is also recommended that the user county keep a record of the number of votes cast each evening when they close the Accuvote and confirm the number of votes on the device when opening the device the next morning. It is further recommended that the Accuvote be kept separate from the smart card burner after hours.

Under the provisions of RCW 29.33.041, the AccuVote AVTS-R6 Direct Recording Electronic Touchscreen System using the Global Elections Management System (GEMS v.1.17.17,

NASED N0306011717) and the AccuVote AVTS-R6 (NASED N010702-4011) with associated firmware (v.4.0.11), are approved for use in Washington State, as a direct recording electronic vote tabulation system, when used in compliance with the procedures contained in this certification and Washington State law.

It is recommended that the canvassing board of any county using this system adopt written procedures governing these processes. This equipment should be used with a device or devices capable of suppressing current surges, voltage fluctuations, and any other line disturbances.

Certified on this September 6, 2002

_____
        SAM REED
        Secretary of State